

PARTICLES FOR INHALATION HAVING RAPID RELEASE PROPERTIES

ABSTRACT OF THE DISCLOSURE

The invention generally relates to formulations having particles comprising phospholipids, bioactive agent and excipients and the pulmonary delivery thereof. Dry powder inhaled insulin formulations are disclosed. Formulations comprising DPPC, insulin and sodium citrate which are useful in the treatment of diabetes are disclosed. Also, the invention relates to a method of for the pulmonary delivery of a bioactive agent comprising administering to the respiratory tract of a patient in need of treatment, or diagnosis an effective amount of particles comprising a bioactive agent or any combination thereof in association, wherein release of the agent from the administered particles occurs in a rapid fashion.